Do NOT enter claims



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Fax Notes:

Mr. Treanor,

The following is a proposed amendment to put 10/581,684 in condition for allowance. Attached are: a marked-up version of the claims, a clean version of the claims, and comments discussing the rationale for the proposed changes. If these changes are acceptable, I will enter them in an examiner's amendment.

Sincerely,

Michael J Feely (Primary Examiner; AU 1796)

Date and time of transmission: Thursday, May 20, 2010 12:26:14 PM Number of pages including this cover sheet: 11

Marked-up version

I (Currently Amended): A cured epoxy resin comprising a deagglomerated barium sulphate dispersed within said cured epoxy resin, said deagglomerated barium sulfate comprising having primary and secondary barium sulfate particles, a crystallization inhibitor, and a dispersant; wherein the primary particles have having an average primary particle size of $< 0.5 \mu m$, the barium sulphate comprising a crystallization inhibitor and a dispersant;

wherein the barium sulphate comprises a dispersant that sterically prevents reagglomeration of the <u>primary and secondary</u> barium sulphate particles and that comprises groups which are able to interact with the surface of the <u>primary and secondary</u> barium sulphate <u>particles</u>, the dispersant being substituted by polar groups which endow the <u>primary and secondary</u> barium sulphate particles with a hydrophilicized surface, which permit the coupling of the <u>primary and secondary</u> barium sulphate particles to or into the epoxide and, accompanying the coupling, a further deagglomeration.

2 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the <u>deagglomerated</u> barium sulphate is present in an amount of 0.1 to 50% by weight <u>of the</u> cured epoxy resin.

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Do NOT enter claims

3 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the

primary particle size of the barium sulphate particles have an average primary particle

size of is in the range from 0.01 μm to less than 0.5 μm

4-6 (Previously Presented)

7 (Cancelled)

8-11 (Previously Presented)

12 (Currently Amended): A composition comprising an epoxy resin a precursor of a

cured epoxy resin and a deagglomerated barium sulphate, said deagglomerated barium

sulfate comprising having primary and secondary barium sulfate particles, a

crystallization inhibitor, and a dispersant; wherein the primary particles have having an

 $\underline{average}$ primary particle size $\underline{of} < 0.5~\mu m,$ and comprising a crystallization inhibitor and a

dispersant,

wherein the barium sulphate comprises a dispersant that sterically prevents

reagglomeration of the primary and secondary barium sulphate particles and that

comprises groups which are able to interact with the surface of the $\underline{\text{primary}}$ and secondary

barium sulphate particles, the dispersant being substituted by polar groups which endow

the primary and secondary barium sulphate particles with a hydrophilicized surface,

which permit the coupling of the primary and secondary barium sulphate particles to or

into the epoxide and, accompanying the coupling, a further deagglomeration.

Do NOT enter claims

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13 (Currently Amended): The composition according to Claim 12, wherein the deagglomerated barium sulphate is present in an amount of 0.1 % to 50% by weight,

based on the total weight of the composition.

14 (Currently Amended): A composition comprising uncured epoxy resin and \underline{a}

 $deagglomerated\ barium\ sulphate, \underline{said\ deagglomerated\ barium\ sulfate\ comprising\ having}$

primary and secondary barium sulfate particles, a crystallization inhibitor, and a

dispersant; wherein the primary particles have having an average primary particle size of

< 0.5 µm, the barium sulphate comprising a crystallization inhibitor and a dispersant,

wherein the barium sulphate comprises a dispersant that sterically prevents

reagglomeration of the primary and secondary barium sulphate particles and that

comprises groups which are able to interact with the surface of the primary and secondary

barium sulphate particles, the dispersant being substituted by polar groups which endow

the <u>primary and secondary</u> barium sulphate particles with a hydrophilicized surface,

which permit the coupling of the <u>primary and secondary</u> barium sulphate particles to or

into the epoxide and, accompanying the coupling, a further deagglomeration.

15 (Currently Amended): The composition according to claim 14, wherein the

deagglomerated barium sulphate is present in an amount of 0.1% to 50% by weight,

based on the total weight of the composition.

Do NOT enter claims

Proposed Amendment for 10/581.684 (Attorney Docket No. 292319US0X PCT)

16 (Currently Amended): A process for producing a the cured epoxy resin according to

Claim 1, said process comprising: dispersing wherein the agglomerated barium sulphate

having a particle size < 0.5 μm, and comprising said crystallization inhibitor and a said

dispersant, is deagglomerated in a precursor of the cured epoxy resin prior to curing;[[,]]

and curing the epoxy resin then the cured epoxy resin is produced.

17 (Cancelled)

18 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the

deagglomerated primary barium sulphate particles have has an average primary particle

size of $< 0.1 \mu m$.

19 (Previously Presented)

20 (Currently Amended): The cured epoxy resin according to Claim 1, obtained by

dispersing the deagglomerated barium sulphate in a precursor of the cured epoxy resin

prior to its curing.

21 (Cancelled)

22-23 (Previously Presented)

Do NOT enter claims

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Proposed Amendment for 10/581,684 (Attorney Docket No. 292319US0X PCT)

Clean version

1 (Currently Amended): A cured epoxy resin comprising a deagglomerated barium

sulphate dispersed within said cured epoxy resin, said deagglomerated barium sulfate

comprising primary and secondary barium sulfate particles, a crystallization inhibitor.

and a dispersant; wherein the primary particles have an average primary particle size of <

 $0.5~\mu m,$

wherein the dispersant sterically prevents reagglomeration of the primary and

secondary barium sulphate particles and comprises groups which are able to interact with

the surface of the primary and secondary barium sulphate particles, the dispersant being

substituted by polar groups which endow the primary and secondary barium sulphate

particles with a hydrophilicized surface, which permit the coupling of the primary and

secondary barium sulphate particles to or into the epoxide and, accompanying the

coupling, a further deagglomeration.

2 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the

deagglomerated barium sulphate is present in an amount of 0.1 to 50% by weight of the

cured epoxy resin.

3 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the

primary barium sulphate particles have an average primary particle size of from $0.01~\mu m$

to less than 0.5 µm.

Do NOT enter claims

Proposed Amendment for 10/581.684 (Attorney Docket No. 292319US0X PCT)

4-6 (Previously Presented)

7 (Cancelled)

8-11 (Previously Presented)

12 (Currently Amended): A composition comprising a precursor of a cured epoxy resin

and a deagglomerated barium sulphate, said deagglomerated barium sulfate comprising

primary and secondary barium sulfate particles, a crystallization inhibitor, and a

dispersant; wherein the primary particles have an average primary particle size of < 0.5

μm,

wherein the dispersant sterically prevents reagglomeration of the primary and

secondary barium sulphate particles and comprises groups which are able to interact with

the surface of the primary and secondary barium sulphate particles, the dispersant being

substituted by polar groups which endow the primary and secondary barium sulphate

particles with a hydrophilicized surface, which permit the coupling of the primary and

secondary barium sulphate particles to or into the epoxide and, accompanying the

coupling, a further deagglomeration.

13 (Currently Amended): The composition according to Claim 12, wherein the

deagglomerated barium sulphate is present in an amount of 0.1 to 50% by weight, based

on the total weight of the composition.

14 (Currently Amended): A composition comprising uncured epoxy resin and a

deagglomerated barium sulphate, said deagglomerated barium sulfate comprising primary

and secondary barium sulfate particles, a crystallization inhibitor, and a dispersant;

wherein the primary particles have an average primary particle size of < 0.5 μm,

wherein the dispersant sterically prevents reagglomeration of the primary and

secondary barium sulphate particles and comprises groups which are able to interact with

the surface of the primary and secondary barium sulphate particles, the dispersant being

substituted by polar groups which endow the primary and secondary barium sulphate

particles with a hydrophilicized surface, which permit the coupling of the primary and

secondary barium sulphate particles to or into the epoxide and, accompanying the

coupling, a further deagglomeration.

15 (Currently Amended): The composition according to claim 14, wherein the

deagglomerated barium sulphate is present in an amount of 0.1 to 50% by weight, based

on the total weight of the composition.

16 (Currently Amended): A process for producing the cured epoxy resin according to

Claim 1, said process comprising: dispersing the agglomerated barium sulphate in a

precursor of the cured epoxy resin prior to curing; and curing the epoxy resin.

17 (Cancelled)

Do NOT enter claims

Proposed Amendment for 10/581,684 (Attorney Docket No. 292319US0X PCT)

18 (Currently Amended): The cured epoxy resin according to Claim 1, wherein the

primary barium sulphate particles have an average primary particle size of \leq 0.1 $\mu m.$

19 (Previously Presented)

20 (Currently Amended): The cured epoxy resin according to Claim 1, obtained by dispersing the deagglomerated barium sulphate in a precursor of the cured epoxy resin prior to curing.

21 (Cancelled)

22-23 (Previously Presented)

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Comments

In claims 1, 12, and 14, the language regarding the agglomerated barium sulfate
has been clarified with the following language: "said deagglomerated barium
sulfate comprising primary and secondary barium sulfate particles, a
crystallization inhibitor, and a dispersant".

- In claims 1, 12, and 14, the dispersant limitations have been changed to clarify the
 relationship between the dispersant and the primary and secondary barium sulfate
 particles.
- In claim 1, the spatial relationship between the cured epoxy resin and the
 deagglomerated barium sulfate has been clarified with the following language: "a
 deagglomerated barium sulfate dispersed within said cured epoxy resin".
- Claim 2 has been amended to feature the weight basis: of the cured epoxyresin.
 The amount is also now drawn to the deagglomerated basium sulphate.
- In claim 3, the particle size range has been changed to fall within the range of claim 1: from 0.01 un to less than 0.5 un.
- In claim 12, the "epoxy resin precursor" has been replaced with: a precursor of a cured epoxy resin see page 8, lines 6-15 of the specification or paragraphs 0036-0037 of the prepublication. A precursor "of an epoxy resin" is different from a precursor "of a cured epoxy resin". It is clear from the specification that the precursor of the instant invention is one "of a cured epoxy resin".
- In claims 13 and 15, the amount is now drawn to the deagglomerated barium sulphate.

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- Claim 16 has been changed to clarify the process. Specifically, it now comprises the steps of: dispersing the agglomerated barium sulphate in a precursor of the cured epoxy resin prior to curing; and curing the epoxy resin see page 8, lines 6-15 of the specification or paragraphs 0036-0037 of the prepublication. This new language is also consistent with the product-by-process language of claim 20.
- Claim 18 has been changed to specify the primary barium sulfate particles.
- In claim 20, the "precursor of the epoxy resin" has been replaced with: a
 precursor of the cured epoxy resin see page 8, lines 6-15 of the specification or
 paragraphs 0036-0037 of the prepublication. A precursor "of an epoxy resin" is
 different from a precursor "of a cured epoxy resin". It is clear from the
 specification that the precursor of the instant invention is one "of a cured epoxy
 resin".